WHAT IS CLAIMED IS:

1. An ink jet recording process comprising the steps of:

applying an image formation ink and a clear ink one over the other onto a recording medium with a recording head to form a mixed dot; and

detecting dot omission, in which the presence or absence of dot omission of the clear ink is judged by measuring the diameter of the mixed dot.

2. The ink jet recording process according to claim 1, wherein the dot omission detecting step is a step of judging the dot omission of the clear ink as absent when the diameter of the mixed dot exceeds a specified reference value, and judging the dot omission of the clear ink as present when the diameter of the mixed dot is equal to or less than the specified reference value.

3. The ink jet recording process according to claim 2, wherein a single dot is formed in a region on the recording medium other than the region where the mixed dot is formed, by independently recording the image formation ink, and the reference value is prepared based on the diameter of the single dot.

4. The ink jet recording process according to claim 3, wherein the reference value is prepared so as to satisfy the following equation:

Reference value = Diameter of single dot + α

wherein $\alpha \geq 0$.

5. The ink jet recording process according to claim 1, wherein the clear ink has a surface tension of 40 mN/m or less.

6. The ink jet recording process according to claim 1, which further comprises a step of carrying out ink jet recording when the dot omission of the clear ink is judged as absent by the dot omission detecting step, and carrying out cleaning of the recording head when the dot omission of the clear ink is judged as present by the dot omission detecting step.

7. An ink jet recording apparatus capable of applying an image formation ink and a clear ink one over the other onto a recording medium with a recording head to form a mixed dot, which comprises:

a dot diameter measuring unit capable of measuring the diameter of the mixed dot;

a judging unit capable of judging the presence or absence of dot omission of the clear ink depending on the diameter of the mixed dot;

a cleaning mechanism capable of cleaning the recording head; and

a control unit capable of selecting either "ink jet recording with the recording head" or "cleaning of the recording head with the cleaning mechanism" depending on the result of the judgment by the judging unit.

8. An ink jet recording process comprising the steps of:

applying an image formation ink and a reactive clear ink one over the other onto a recording medium with a recording head to form a mixed dot; and

detecting dot omission, in which the presence or absence of dot omission of the reactive clear ink is judged by measuring the image density of the mixed dot.

9. The ink jet recording process according to claim 8, wherein the dot omission detecting step is a step of judging the dot omission of the reactive clear ink as absent when the image density of the mixed dot exceeds a specified reference value, and judging the dot omission of the reactive clear ink as present when the image density

of the mixed dot is equal to or less than the specified reference value.

10. The ink jet recording process according to claim 9, wherein a single dot is formed in a region on the recording medium other than the region where the mixed dot is formed, by independently recording the image formation ink, and the reference value is prepared based on the image density of the single dot.

11. The ink jet recording process according to claim 10, wherein the reference value is prepared so as to satisfy the following equation:

Reference value = Image density of single dot + α

wherein $\alpha \geq 0$.

12. The ink jet recording process according to claim 8, which further comprises a step of carrying out ink jet recording when the dot omission of the reactive clear ink is judged as absent by the dot omission detecting step, and carrying out cleaning of the recording head when the dot omission of the reactive clear ink is judged as present by the dot omission detecting step.

13. An ink jet recording apparatus capable of applying an image formation ink and a reactive clear ink one over the other onto a recording medium with a recording head to form a mixed dot, which comprises:

an image density measuring unit capable of measuring the image density of the mixed dot;

a judging unit capable of judging the presence or absence of dot omission of the reactive clear ink depending on the image density of the mixed dot;

a cleaning mechanism capable of cleaning the recording head; and

a control unit capable of selecting either "ink jet recording with the recording head" or "cleaning of the recording head with the cleaning mechanism" depending on the result of the judgment by the judging unit.